

## Prince & Izant Company

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## SILVERBRAZE 70 (BAg-10) TECHNICAL DATA

<b>NOMINAL COMPOSITION</b>	<b>Silver</b>	70.0% ± 1.0												
	<b>Copper</b>	20.0% ± 1.0												
	<b>Zinc</b>	10.0% ± 1.0												
	<b>Other Elements Total</b>	0.15% Max												
<b>PHYSICAL PROPERTIES</b>	<b>Color</b>	White												
	<b>Solidus</b>	1275°F (690°C)												
	<b>Liquidus</b>	1360°F (737°C)												
	<b>Recommended Brazing Temperature</b>	1410-1460°F (765-793°C)												
	<b>Density (Troy oz/in<sup>3</sup>)</b>	5.15												
	<b>Specific Gravity</b>	9.77												
	<b>Electrical Conductivity (%IACS)</b>	26.7												
	<b>Electrical Resistivity (Microhm-cm)</b>	6.45												
<b>USES</b>	<p>Silver Braze 70 is commonly used in the silver-smithing trade and other applications where their silver-white color is advantageous in color matching, and the corrosion resistance of high-silver, low-zinc alloy is desired. Silver Braze 70 is often used in combination to perform sequential or step brazing of adjacent joints, to avoid re-melting the previously made joints. Because of the zinc content, it can be used to join iron and nickel-base alloys. The low-zinc content also causes very little change in the brilliance of the enamel, when enameling after brazing.</p>													
<b>BRAZING CHARACTERISTICS</b>	<p>Silver Braze 70 is an intermediate silver brazing filler metals with a slight tendency to liquate (separation into low and high melting constituents) if heated slowly through the melting range. When Silver Braze 70 is used for brazing silver base alloys, the re-melt temperature is raised by solution of silver in the brazing alloy. Conversely, the re-melt temperature of this brazing alloy is lowered by solution of copper when brazing copper base alloys. Flux is generally used.</p>													
<b>PROPERTIES OF BRAZED JOINTS</b>	<p>The properties of a brazed joint are dependent upon numerous factors including base metal properties, joint design, metallurgical interaction between the base metal and the filler metal. The results listed below were generated from brazed butt joints which were tested under standard room temperature conditions:</p> <table><thead><tr><th></th><th><b><u>Tensile Strength (lbs/in<sup>2</sup>)</u></b></th><th><b><u>Elongation (%. 2" gage length)</u></b></th></tr></thead><tbody><tr><td>Copper</td><td>30,000-33,000</td><td>5-7</td></tr><tr><td>Brass</td><td>25,000-30,000</td><td>16-27</td></tr><tr><td>Nickel-Silver</td><td>40,000-50,000</td><td>9-12</td></tr></tbody></table>			<b><u>Tensile Strength (lbs/in<sup>2</sup>)</u></b>	<b><u>Elongation (%. 2" gage length)</u></b>	Copper	30,000-33,000	5-7	Brass	25,000-30,000	16-27	Nickel-Silver	40,000-50,000	9-12
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<b>SPECIFICATIONS</b>	<p>Silver Braze 70 conforms to: Unified Numbering System (UNS) P07700 and American Welding Society (AWS) A5.8/A5.8M BAg-10</p>													
<b>AVAILABLE FORMS</b>	<p>Wire, strip, engineered preforms, specialty preforms per customer specification, powder and paste.</p>													

Individuals requiring further information and Engineering Specification Documents may wish to contact the Engineering Society for Advanced Mobility, Land Sea Air and Space, The Society of Automotive Engineers <http://www.sae.org/> (SAE AMS) or The American Welding Society (AWS) <http://aws.org/>

#### **NOTE:**

#### **DISCLAIMER**

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